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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/853,083	05/10/2001	Kenji Uchiyama	9319S-000204	5266

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HARNESS, DICKEY & PIERCE, PLC  
P.O. BOX 828  
BLOOMFIELD HILLS, MI 48303

EXAMINER

RUDE, TIMOTHY L

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 12/13/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/853,083

Applicant(s)

UCHIAMA

Examiner

Timothy L Rude

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or  
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

1. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al (Takahashi) USPAT 6,266,119.

As to claim 1, Takahashi discloses all recitations of the claim. Takahashi discloses the nature of the alignment problem, the dimensional change due to process heating, and decreasing the error by finely adjusting a size of a mask used in the electrode pattern formation (col. 1, lines 51-67, and col. 2, lines 1-48, especially col. 2, lines 29-39) so the pitches become substantially equal to each other during the bonding process (dimensional error reduced to acceptable magnitude).

As to claims 14 and 15, Takahashi discloses all recitations of the claim.

Takahashi discloses the nature of the alignment problem, the dimensional change due to process heating, and decreasing the error by finely adjusting a size of a mask used in the electrode pattern formation (col. 1, lines 51-67, and col. 2, lines 1-48, especially col. 2, lines 29-39) so the pitches become substantially equal to each other during the bonding process (dimensional error reduced to acceptable magnitude). Takahashi also discloses use of alignment marks on both base members with terminals therebetween (col. 9, lines 1-34 and Figure 6).

As to claims 3 and 16, Takahashi discloses the use of anisotropic conductive adhesive (col. 1, lines 51-55) and heating (col. 2, lines 29-34).

As to claims 4, 11, 17, and 23, Takahashi discloses the pitch error due to thermal expansion is greater for a flexible printed circuit (second terminal bank) is greater than that of glass (col. 2, lines 34-36), and Takahashi discloses a fine compensating adjustment (which would necessarily be to make the second terminal bank pitch smaller) to the electrode pattern formation (col. 2, lines 36-39).

As to claims 5-6 and 20-21, Takahashi discloses the use of polyimide film with a thickness of 15-75  $\mu\text{m}$  (col. 5, lines 11-19) which overlaps the claimed range. Takahashi discloses the dimensional error due to process heating to be generally

between 0.05% and 0.1% (col. 2, lines 35-39) which would necessitate a corresponding pitch reduction range that compares to the claimed range. The expansion coefficient range would be inherent to the film material, would vary accordingly, and would affect the thermal expansion and in turn the selected pitch compensation.

As to claims 7-8 and 18-19, Takahashi discloses the use of glass (col. 1, lines 51-53) and polyimide as an example material (col. 5, lines 15-19). Substitution of similar materials is not considered patentably distinct unless unexpected results are obtained.

As to claim 22, Takahashi discloses the use of an electro-optical device in a motion picture image display (col. 9, lines 56-59), which is an electronic equipment.

As to claims 9 and 10, Takahashi discloses all recitations of the claim. Takahashi discloses the nature of the alignment problem, the dimensional change due to process heating, and decreasing the error by finely adjusting a size of a mask used in the electrode pattern formation (col. 1, lines 51-67, and col. 2, lines 1-48, especially col. 2, lines 29-39) so the pitches become substantially equal to each other during the bonding process (dimensional error reduced to acceptable magnitude).

As to claims 12-13 and 24-25, Takahashi discloses values for the expansion factors, although he assigns different letters, and Takahashi discloses the fact that

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these are related to the temperature of the process (heat treatment) and the material type (expansion coefficient) (col. 1, lines 51-67, and col. 2, lines 1-48, especially col. 2, lines 29-39).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L Rude whose telephone number is (703) 305-0418. The examiner can normally be reached on Monday through Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on (703) 308-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7725 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



Timothy L Rude  
Examiner  
Art Unit 2871

TLR  
December 4, 2001



William L. Sikes  
Supervisory Patent Examiner  
Technology Center 2800